



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

176402

ACTION MEMORANDUM

REPLY TO THE ATTENTION OF:

DATE: SEP 24 2001

SUBJECT: Request for a Time-Critical Removal Action at the Johns-Manville Site 2 in Waukegan, Lake County, Illinois
(Site ID# 05A5)

FROM: Brad Benning and Charles Gebien
On-Scene Coordinators *Brad Benning*

TO: William E. Muno, Director
Superfund Division

THRU: Richard Karl, Chief
Emergency Response Branch

I. PURPOSE

The purpose of this action memorandum is to request and document approval to expend up to \$1,602,900 to conduct a time-critical removal action at the Johns-Manville Site 2 located in Waukegan, Lake County, Illinois. Specifically, the proposed removal action will address contaminated soil around the former industrial facility.

The presence of asbestos-contaminated soils and waste in excess of the United States Environmental Protection Agency (EPA) established standards as set forth in 40 C.F.R. § 261.24 poses an imminent and substantial threat to public health and the environment, which qualifies Johns-Manville Site 2 in Waukegan, Illinois (the Site) for a Removal Action. The Site consists of land adjacent to a former asbestos manufacturing facility, which has asbestos-containing material (ACM) at and near the ground surface.

Potentially Responsible Party (PRP) asbestos response actions have been taken pursuant to a directive from Remedial Project Manager (RPM) Brad Bradley and pursuant to the Remedial Design/Remedial Action (RD/RA) Consent Decree with Johns-Manville. (please see confidential enforcement addendum). These response actions have mitigated some of the human health threats by removing much of the surficial ACM in the impacted areas. The threats identified in Section III necessitate that this removal be classified as a time-critical removal action. This site is adjacent to and was derived from the Johns-Manville Superfund site, which is on the National Priorities List (NPL). This action is consistent with and complements the proposed redevelopment of the Johns-Manville site into a sports complex.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# ILD005443544

A. PHYSICAL LOCATION

Johns-Manville Site 2 is located on the south side of Greenwood Avenue, east of Pershing Road in Waukegan, Illinois (see Figure 1). Coordinates for the site are latitude 42 degrees 23' 05" north, and longitude 87 degrees 49' 26" west. The Site is located between the Johns-Manville Superfund Site and Commonwealth Edison and is adjacent to Lake Michigan. A parking lot and recreational area (fishing pier) are located on and immediately adjacent to Site 2. The nearest residential areas are approximately ½ mile from the Site. Part of Site 2 has unrestricted access.

B. SITE DESCRIPTION AND BACKGROUND

Site 2 is situated primarily on City of Waukegan property, and is currently managed by the Illinois Department of Natural Resources (IDNR) as an access to the Commonwealth Edison fishing pier. A shooting range was constructed on Site 2 in 1959, in conjunction with the Pan American Games, which were hosted by the City of Chicago that year. A series of berms were constructed on Site 2 to prevent bullets from leaving the range and traveling onto adjacent properties. In the late 1960s, the berms on Site 2 were bulldozed nearly to grade. The easternmost berm was graded to the edge of Lake Michigan, and was partially consumed by the lake during periods of high water levels in the 1970s. The dimensions of Site 2 are approximately 300 feet by 1500 feet.

C. CURRENT SITE CONDITIONS

Sites 2 is adjacent to and derived from the Johns-Manville Superfund Site. Manufacturing activities at the Johns-Manville facility ceased in 1998. Surficial ACM at Site 2 was picked up and disposed of by Johns-Manville in December 1998. Subsequent sampling conducted by ELM Consulting, Johns-Manville's contractor, indicated that several sub-areas of the Site (based on 100 feet by 100 feet grids) contained ACM at depths of up to three feet. Some ACM may be located at greater depth, but sampling was not conducted below three feet. No lead-bearing materials (i.e. bullet fragments) were found in any of the samples collected at Site 2. On June 14, 1999, representatives of IDNR discovered friable ACM near Site 2 that had been exposed via erosion along the walking path between the north shore of the cooling water intake to the then Commonwealth Edison fossil fuel plant and the parking lot. The IDNR representatives collected the piece of friable ACM and double-bagged it for storage. The sample was analyzed in March 2000, and the piece of ACM was found to contain 40-45% asbestos.

Asbestos is a hazardous substance as defined by 40 CFR Section 302.4 of the National Contingency Plan (NCP). Asbestos is a potential concern because chronic inhalation exposure to excessive levels of asbestos fibers suspended in air can result in lung disease such as asbestosis,

mesothelioma, and lung cancer. Exposures via ingestion and dermal contact are considered to be of lesser concern.

The Environmental Justice (EJ) Analysis indicated that the site is located in census tract 8617, block group 2, with a population of 1473. To meet the EJ concern criteria, the area within 1-mile of the site must have a population that is twice the state low income percentage and/or twice the state minority percentage. For this site, the area must be at least 54% low-income and/or at least 50% minority. At this site, the low-income percentage is 18%, and the minority percentage is 25%. Therefore, this site does not meet the region's EJ criteria based on demographics as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998".

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the Site present an imminent and substantial threat to human health and the environment and meet the criteria for initiating a Removal Action under the National Contingency Plan, Section 300.415, Paragraph (b)(2). The following factors from §300.415(b)(2) of the NCP form the basis for EPA's determination of threat presented, and the appropriate action to be taken:

a) Actual or potential exposure to hazardous substances or contaminants by nearby human populations, animals or the food chain from hazardous substances, pollutants or contaminants:

This factor is present due to the existence of ACM, some of which may be friable, at and near the ground surface at the Site. A sample of friable asbestos near Site 2 was analyzed and found to contain 40-45% asbestos. Also, there is unrestricted access to a portion of Site 2.

b) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

This factor is present at the Site due to the existence of high asbestos levels on-site. Asbestos migration onto adjacent properties may occur via airborne dust from the site. Friable asbestos, such as that observed at the ground surface near Site 2, is particularly susceptible to airborne migration. The friable asbestos near Site 2 was found along the walking path to the Commonwealth Edison fishing pier, and area that receives substantial recreational use. Further ACM may be exposed in some areas of the Site by erosion from rainfall events.

c) Weather condition that may cause hazardous substances or pollutants or contaminants to migrate or be released;

This factor is present at the Site due to the existence of surficial ACM that may migrate into

adjacent areas via airborne dust during dry periods and/or periods of high winds or via surface runoff during heavy rains. The warmer temperatures and dry weather typical in the summer and fall months will contribute to the migration of asbestos containing soils. As soils dry out they are more likely to be transported by wind, causing the asbestos to become airborne and available for inhalation. In the spring time snow melt, rainfall, or other forms of run-off inducing events will tend to spread the contamination further from the source area.

IV. ENDANGERMENT DETERMINATION

Asbestos is a generic term for a group of six naturally-occurring fibrous silicate minerals. Asbestos can cause asbestosis and is a recognized human carcinogen, causing lung cancer and mesothelioma, a lethal neoplasm of the lining of the chest and abdominal cavities. Cancer of the larynx and esophageal lining has also been associated with exposure to asbestos. Commercial forms of asbestos have been found to be carcinogenic in experimental animals.

The actual or threatened release of asbestos from the Site, if not addressed by implementing the response action selected in this Action Memorandum, presents an imminent and substantial endangerment to the public health, welfare, and the environment.

V. PROPOSED ACTION AND ESTIMATED COSTS

Remediation of ACM on the Site is proposed. The cleanup should be performed in accordance with State of Illinois requirements. Pursuant to letters from EPA dated March 20, 1998, and April 29, 1998, Johns-Manville (JM) was required to conduct the following response actions:

- A. fully characterize the nature and extent of the contamination at the Site, and
- B. meet with EPA to discuss cleanup options with all interested parties and develop disposal options and time lines for completion of such options.

JM has performed these activities. To mitigate the threat to the public health and welfare or the environment posed by the asbestos present in the soils, the proposed removal actions are outlined below. The removal will involve the following:

- A. Develop and implement a Site Safety and Health Plan;
- B. Provide and maintain site security around contaminated areas;
- C. Post warning signs around the contaminated areas;
- D. Submit a Removal Action Work Plan, which will contain a description of the response action to be taken, an implementation schedule, and a list of personnel involved in implementing the response action;

- E. Excavate grid areas previously identified as containing ACM with greater than one percent asbestos to a maximum depth of between two and three feet and disposal of the excavated material in the Settling Basin on the Johns-Manville facility or at an EPA-approved off-site disposal facility in accordance with the U.S. EPA Off-Site Rule (40 CFR 300.440);
- F. Perform personal air sampling and ambient air sampling during remediation activities;
- G. Implement engineering measures to control dust during the removal action;
- H. Place a suitable barrier (e.g. orange snow fence) in any excavated grid areas where ACM with greater than one percent asbestos extends deeper than three feet below the ground surface;
- I. Place suitable, contaminant-free backfill in excavated areas and grading of such backfill to a smooth, level surface, with proper drainage;
- J. Establish a vegetative layer over the backfilled areas;
- K. Analyze bulk asbestos samples using standard Polarized Light Microscopy (PLM) methods. Supplement PLM analysis with Transmission Electron Microscopy (TEM) for samples with lower concentrations of asbestos to assess whether contamination is present and whether sufficient excavation has occurred.
- L. Prepare and submit a summary report of the removal action.

It is estimated that the removal action will take approximately 45 days of on-site work time to remediate.

The OSC has begun planning for the provision of post-removal site control, consistent with the provisions of Section 300.415(k) of the NCP. The nature of this removal will minimize post-removal site control.

The response actions described in this Action Memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the facilities in the affected area which may pose an imminent and substantial endangerment to public health and the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed. These response actions are consistent with and complement the proposed redevelopment of the Johns-Manville site into a sports complex.

All applicable or relevant and appropriate requirements (ARARs) will be complied with to the

extent practicable. Any State ARAR identified in a timely manner for this removal action will be complied with to the extent practicable. A letter outlining State ARARs is included in the Administrative Record (Attachment A).

Estimated Costs

The following cost estimates include costs associated with the removal action for purposes of creating a total project ceiling. These costs are being estimated anticipating that the project will need to be performed as a fund lead action. The costs do not include any past or future investigation costs on the Site. Costs are projected as follows:

EXTRAMURAL COSTS

ERRS Contractor	\$1,200,800
Contingency (15%)	<u>180,000</u>
Subtotal	1,380,800
START	36,000
Extramural Subtotal	1,416,800
Extramural Contingency (15%)	<u>142,000</u>
Total Extramural Costs	\$ 1,558,800

INTRAMURAL COSTS

U.S. EPA Direct Costs	
\$30 x (450 Regional Hours + 45 H.Q. Hours)	\$ 14,850
U.S. EPA Indirect Costs	
\$65 x 450 Regional Hours	<u>\$ 29,250</u>
Total Intramural Costs	\$ 44,100
TOTAL PROJECT CEILING	\$ 1,602,900

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed or non-action may result in increased likelihood of inhalation of airborne asbestos fibers from the site.

VII. OUTSTANDING POLICY ISSUES

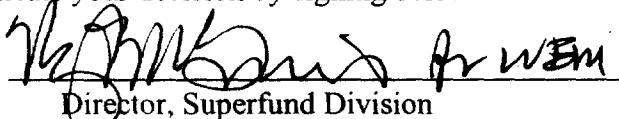
There are no outstanding policy issues associated with this Site.

VIII. ENFORCEMENT

For administrative purposes, information concerning confidential enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for Site 2 at the Johns-Manville Site located in Waukegan, Lake County, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the Johns-Manville Site. Conditions at the Site meet the NCP Section 300.415 (b)(2) criteria for a Removal Action, and your approval is recommended. The total project ceiling, if approved, will be \$1,602,900. Of this, \$1,522,800 may be used for cleanup contractor costs. You may indicate your decision by signing below

APPROVE:  DATE: 9/29/01
Director, Superfund Division

DISAPPROVE: _____ DATE: _____
Director, Superfund Division

Attachments: A. Administrative Record
B. Confidential Enforcement Addendum
C. Detailed Contractor Costs
D. EJ Analysis
E. Site Map

cc: C. Stanton, U.S. EPA, OERR, 5202G
M. Chezick, U.S. Department of the Interior, **w/o Enf. Addendum**
Sandra Bron, Illinois EPA, **w/o Enf. Addendum**
Director, Illinois EPA, **w/o Enf. Addendum**
Steve Davis, Illinois DNR, **w/o Enf. Addendum**
Beth Wallace, IAG, **w/o Enf. Addendum**

ATTACHMENT A

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTIONADMINISTRATIVE RECORD
FOR
THE JOHNS-MANVILLE ADDITIONAL SITES 2 AND 3
WAUKEGAN, ILLINOISORIGINAL
APRIL 20, 2000

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	03/20/98	Bradley, B., U.S. EPA	Clinton, D., Johns Manville Corporation	Letter re: Development of a Draft Work Plan and Analytical Information for the Johns Manville Manville Roadway and Pier Sites	3
2	04/03/98	Ray, B., Johns Manville International	Vezner, K., U.S. EPA	Characterization Plan for Additional Sites at the Johns Manville Site w/ Attached Cover Letter	9
3	04/29/98	Bradley, B., U.S. EPA	Clinton, D., Johns Manville Corporation	Letter re: U.S. EPA's Approval for JM to Begin the Activities Specified in the April 3, 1998 Characterization Plan for Additional Sites at the Johns Manville Site	1
4	07/10/98	Bradley, B., U.S. EPA	Clinton, D., Johns Manville Corporation	Letter re: U.S. EPA's Approval, with Modifica- tions, of the April 3, 1998 Characterization Plan for Additional Sites for the Johns Manville Site	2
5	11/25/98	Stringer, J., ELM Consulting, L.L.C.	Bradley, B., U.S. EPA	Surface and Subsurface Characterization for Site 2 and Site 3 Work Plan (Version 2) for the Johns Manville Manufacturing Facility w/Attached Cover Letter	45

Johns-Manville AR
(Additional Sites 2 and 3)
Page 2

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
6	02/03/99	Stringer, J., ELM Consulting, L.L.C.	Bradley, B., U.S. EPA	Surface and Subsurface Characterization Draft Summary Maps and Data for Site 2 and Site 3 at the Johns Manville Manufacturing Facility w/ Cover Letter	43
7	05/24/99	Bradley, B., U.S. EPA	Clinton, D., Johns Manville Corporation	Letter re: U.S. EPA's Approval of the February 3, 1999 Surface and Sub- surface Characterization Draft Summary Maps and Data Document for the Johns Manville Site	1
8	06/18/99	Davis, S., Illinois Department of Natural Resources	File	Trip Report for the June 14, 1999 Visit to Site 2 at the Johns Manville Site	1
9	08/00/99	Center for Toxicology and Environ- mental Health	Johns Manville International	Risk Assessment for Public Use of Waukegan Additional Site #2 (Rifle Range/Fishing Pier Access) [DRAFT] for the Johns Manville Manufacturing Facility	14
10	08/09/99	U.S. EPA	File	Cost Summary Sheet for Johns Manville Additional Sites 2 and 3 (DRAFT)	1
11	08/10/99	Clinton, D., Johns Manville Corporation	Bradley, B., U.S. EPA and B. Wallace, Office of Illinois Attorney General	FAX Transmission re: Summary of Remedial Alter- natives and Estimated Costs for Site 2 and Site 3 at the Johns Manville Site	10

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
12	03/07/00	Bron, S., Illinois EPA	Bradley, B., U.S. EPA	Letter re: IEPA's Comments on Johns Manville's Proposed Voluntary Removal Action at the Waukegan Additional Sites 2 and 3 w/Attached IEPA Summary Sheet for ARAR Review	7
13	03/21/00	Draugelis, A., U.S. EPA	Bradley, B., U.S. EPA	Memorandum re: Comments on Johns Manville Site 2 Draft Risk Assessment	2
14	03/29/00	Frejek, R., TEM, Incorporated	Henry, M., Illinois Department of Natural Resources	Letter re: Analytical Results for Friable Asbestos Samples	3
15	05/02/00	Bradley, B., U.S. EPA	Muno, W., U.S. EPA	Enforcement Action Memorandum: Determination of Threat to Public Health and the Environment at the Johns-Manville Site (PORTIONS OF THIS DOCU- MENT HAVE BEEN REDACTED)	12

UPDATE #1
SEPTEMBER 13, 2001

1	00/00/00	Benning, B. & C. Gebien, U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Request for a Time- Critical Removal Action at the Johns-Manville Site (PENDING)
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ATTACHMENT B

**ENFORCEMENT ADDENDUM
JOHNS MANVILLE SITES
WAUKEGAN, ILLINOIS**

SEPTEMBER 2001

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

(REDACTED 2 PAGES)

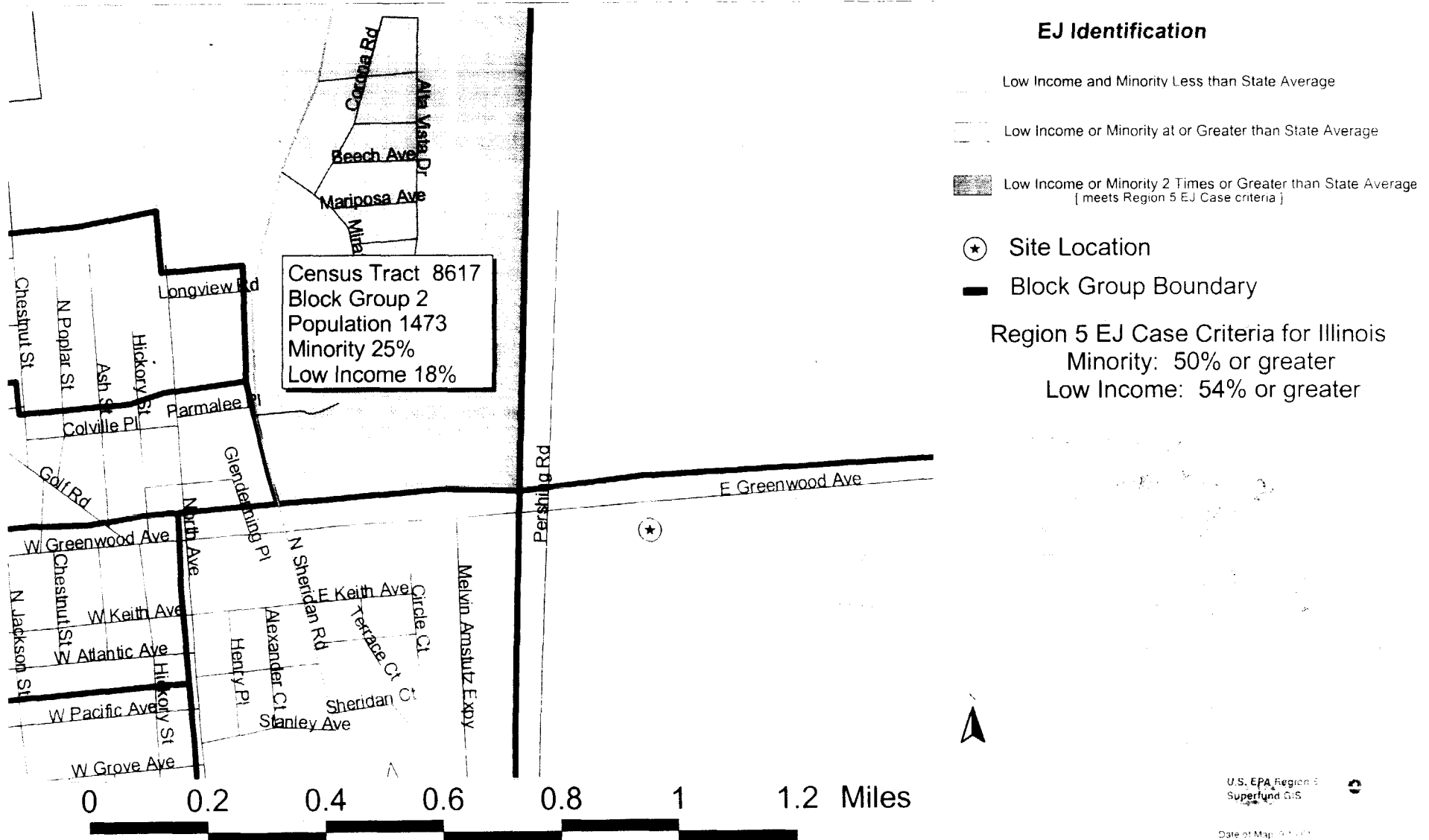
**ATTACHMENT C
ERRS CONTRACTOR COSTS
JOHNS-MANVILLE SITE**

PERSONNEL	\$150,000
EQUIPMENT	73,000
MATERIALS	302,800
TRANSPORTATION	225,000
DISPOSAL	<u>450,000</u>
TOTAL	\$1,200,800

Region 5 Superfund EJ Analysis

Johns-Manville Site

Waukegan, IL



U.S. EPA Region 5
Superfund GIS

Date of Map: 9/1/01

Source of Map: 1990 Census Data

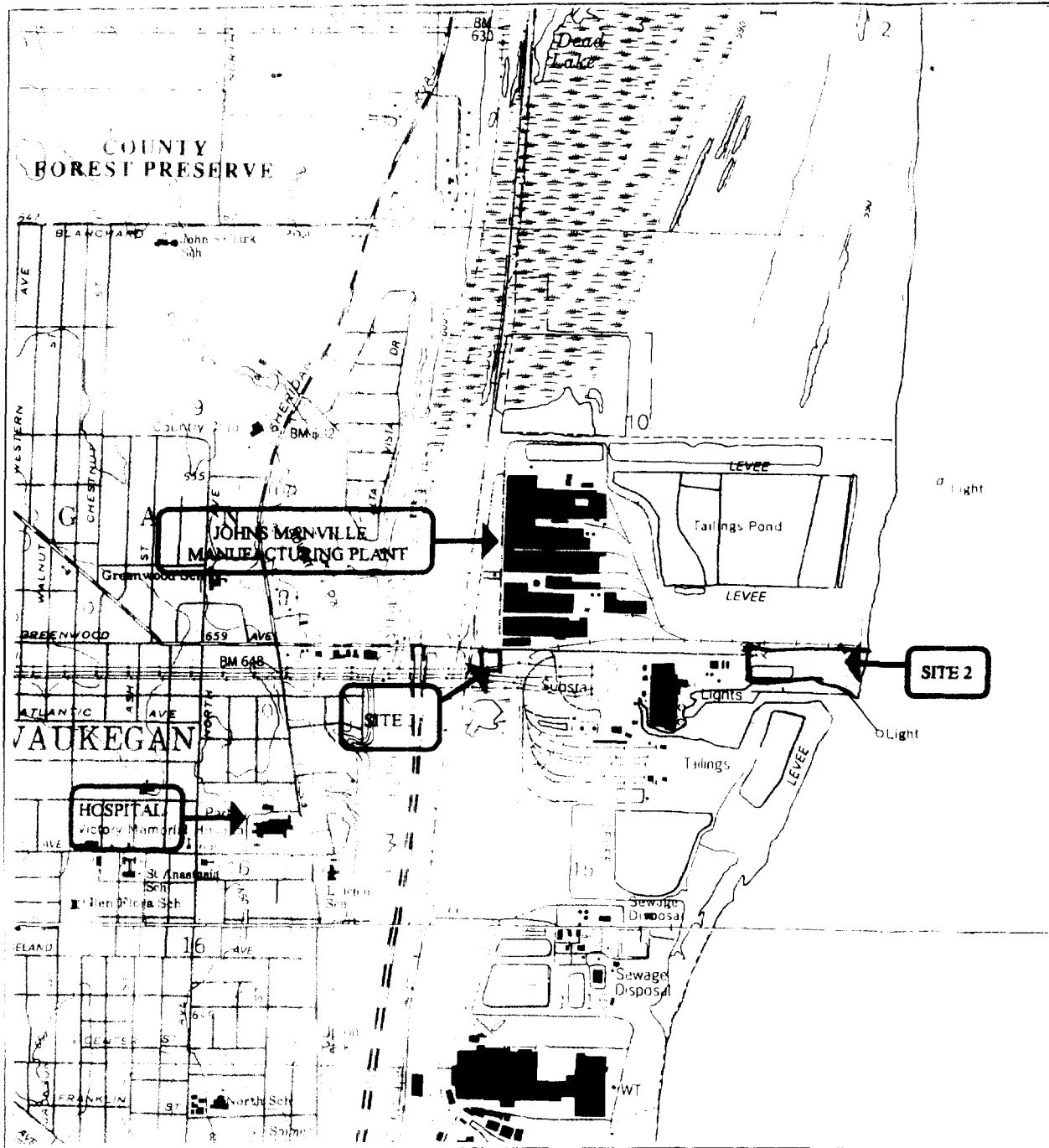


FIGURE - 1
Approximate
Site Location Map

USGS 7.5 Minute Topographic Maps
Waukegan/Zion Quadrangles
Contour Interval = 10'
Scale 1" = 2000'

